

TABLE 8

24 hr Shear Bond Strength of 1P-SEA Containing Different Co-initiators					
			Sample I.D.		
			1P-SEA contain- ing DMABN	1P-SEA contain- ing DHEPT	1P-SEA contain- ing EDAB
Human	RT	QTH Light	23.2 (3.9)	NT	17.0 (7.5)
Dentin	stored	LED light	22.0 (4.0)	NT	15.6 (5.7)
SBS (MPa):	50° C.	QTH Light	15.3 (4.2)	NT	14.5 (6.9)
Mean (SD)	3 weeks	LED light	15.8 (6.1)	NT	16.8 (6.8)
Human	RT	QTH Light	26.4 (5.3)	13.5 (6.7)	32.7 (7.2)
Enamel	stored	LED light	32.0 (3.0)	NT	30.1 (7.3)
SBS (MPa):	50° C.	QTH Light	26.7 (5.3)	NT	7.6 (2.0)
Mean (SD)	3 weeks	LED light	35.3 (7.9)	NT	24.8 (13.3)

What is claimed is:

1. A one-part, self-etching dental adhesive comprising a hydrolytically stable acidic adhesive monomer, a hydrolytically stable, difunctional hydrophilic monomer, and an acid stable visible light cure photoinitiator comprising a combination of diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide, camphorquinone, and dimethylaminobenzonitrile, wherein the hydrolytically stable acidic adhesive monomer is dipentaerythritol pentaacrylate phosphoric acid ester.
2. A one-part, self-etching dental adhesive comprising a hydrolytically stable, difunctional hydrophilic monomer, a hydrolytically stable, difunctional hydrophilic monomer, and an acid stable visible light cure photoinitiator comprising a combination of diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide, camphorquinone, and dimethylaminobenzonitrile, wherein the hydrolytically stable, difunctional hydrophilic monomer is 3-(acryloyloxy)-2-hydroxypropyl methacrylate.

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